## DETAILED ACTION

1.     Applicant's Appeal Brief Filed on 07/10/2008 has been entered into record. Applicant's

argument on claim rejections under 35 U.S.C. 112, first paragraph is reviewed and accepted.

Claims 2-18, 22-24, 30, 32-33 and 35-40 are currently pending.

2.     Applicant's amendment received on 10/24/2007 was entered. Claims 5-10, 13-18, 22-24,

30, 32,-33 and 35-40 were amended. Claims 19-21, 25-29 and 34 were cancelled.

3.     Applicant's submission filed on 05/08/2007 was entered. Claims 2-10, 12-20, 23-25, 30

and 32-40 were amended.

4.     Amendment received on 12/04/2006 was entered into record. No claim was amended.

5.     Applicant's submission filed on 03/15/2006 was entered. Claims 2, 4-5, 11-12, 14-15, 30

and 40 were amended. Claims 1, 31 and 41-44 were cancelled.

6.     Amendment received on 06/29/2005 was entered. Claims 1, 5, 14-15, 30, 40-41 and 43-

44 were amended. Claims 1-44 are still pending.

### *Priority*

7.     This application has no priority claim made. The filing date is 12/12/2001.

### *Examiner's Amendment*

8.     An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

9.     Authorization for this examiner's amendment was given in a telephone interview with

Dean Munyon (Reg. No. 42,914) on 09/08/2008.

10.     The application has been amended against applicant submitted claim set dated

10/24/2007 as follows (only examiner amended claims are shown):

**IN THE CLAIMS**

        5. A method comprising:

        creating a plurality of component fingerprints, wherein the plurality of component

fingerprints includes a fingerprint for a first component, wherein creating the fingerprint for the

first component comprises identifying a plurality of attributes of the first component and

selecting one or more, ~~but not all,~~ of the plurality of attributes as the fingerprint for the first

component;

        automatically discovering the existence of a plurality of components in an information

technology (IT) system using the plurality of component fingerprints, wherein the discovered

components include the first component, wherein automatically discovering the existence of the

first component comprises:

                receiving a plurality of event messages indicating a plurality of real-time events

that occur in the IT system, wherein each event message matches a respective attribute of the

fingerprint for the first component; and

                determining that event messages matching every attribute of the fingerprint for

the first component have been received;

        wherein the method further comprises:

        automatically determining at least one dependency between two or more of the

discovered components; and

tracking changes to at least one of the discovered components and the at least one

dependency between two or more of the discovered components.

13. A computer-readable storage medium ~~storing~~ containing program instructions that are

computer executable to implement a method comprising:

identifying a plurality of attributes of a first component and listing one or more~~, but not~~

~~all,~~ of the plurality of attributes in a fingerprint for the first component;

an observer module detecting a plurality of real-time events in an information technology

(IT) system, wherein each event matches a respective attribute listed in the fingerprint for the

first component;

the observer module sending a respective event message to an analysis module in

response to each of the plurality of real-time events;

the analysis module accumulating the event messages and analyzing the event messages

in order to determine that events matching every attribute listed in the fingerprint for the first

component have occurred in the IT system; and

the analysis module indicating that the first component exists in the IT system in response

to said determining that events matching every attribute listed in the fingerprint for the first

component have occurred in the IT system.

14. A system comprising:

means for creating a plurality of component fingerprints, wherein the plurality of

component fingerprints includes a fingerprint for a first component, wherein creating the

fingerprint for the first component comprises identifying a plurality of attributes of the first

component and selecting one or more, ~~but not all,~~ of the plurality of attributes as the fingerprint

for the first component;

means for automatically discovering the existence of a plurality of components in an

information technology (IT) system using the plurality of component fingerprints, wherein the

discovered components include the first component, wherein automatically discovering the

existence of the first component comprises:

receiving a plurality of event messages indicating a plurality of real-time events

that occur in the IT system, wherein each event message matches a respective attribute of the

fingerprint for the first component; and

determining that event messages matching every attribute of the fingerprint for

the first component have been received;

means for automatically determining at least one dependency between two or more of the

discovered components; and

means for tracking changes to at least one of the discovered components and the at least

one dependency between two or more of the discovered components.

15. An apparatus comprising: a memory storing program instructions;

a processor in communication with the memory; in which the processor is directed by the

program instructions to:

create a plurality of component fingerprints, wherein the plurality of component

fingerprints includes a fingerprint for a first component, wherein creating the fingerprint for the

first component comprises identifying a plurality of attributes of the first component and

selecting one or more, ~~but not all,~~ of the plurality of attributes as the fingerprint for the first component;

automatically discover the existence of a plurality of components in an information technology (IT) system using the plurality of component fingerprints, wherein the discovered components include the first component, wherein automatically discovering the existence of the first component comprises:

receiving a plurality of event messages indicating a plurality of real-time events that occur in the IT system, wherein each event message matches a respective attribute of the fingerprint for the first component; and

determining that event messages matching every attribute of the fingerprint for the first component have been received;

automatically determine at least one dependency between two or more of the discovered components; and

track changes to at least one of the discovered components and the at least one dependency between two or more of the discovered components.

16. A method comprising:

creating a fingerprint for a first component, wherein creating the fingerprint for the first component comprises identifying a plurality of attributes of the first component and selecting one or more, ~~but not all,~~ of the plurality of attributes as the fingerprint for the first component;

creating a subfingerprint for a refinement of the first component, wherein the subfingerprint for the refinement of the first component includes one or more attributes of the refinement of the first component;

automatically discovering the first component in an information technology (IT) system, wherein automatically discovering the first component comprises:

receiving a plurality of event messages indicating a plurality of real-time events that occur in the IT system, wherein each event message matches a respective attribute of the fingerprint for the first component; and

determining that event messages matching every attribute of the fingerprint for the first component have been received;

wherein the method further comprises:

in response to discovering the first component, performing one or more commands to obtain information regarding the first component; and

automatically discovering the refinement of the first component in the IT system by matching the information regarding the first component to the one or more attributes of the refinement of the first component included in the subfingerprint for the refinement of the first component.

23. A computer-readable storage medium ~~storing~~ containing instructions that direct a microprocessor to:

create a fingerprint for a first component, wherein creating the fingerprint for the first component comprises identifying a plurality of attributes of the first component and selecting one or more~~, but not all,~~ of the plurality of attributes as the fingerprint for the first component;

create a subfingerprint for a refinement of the first component, wherein the subfingerprint for the refinement of the first component includes one or more attributes of the refinement of the first component;

automatically discover the first component in an information technology (IT) system,

wherein automatically discovering the first component comprises:

receiving a plurality of event messages indicating a plurality of real-time events

that occur in the IT system, wherein each event message matches a respective attribute of the

fingerprint for the first component; and

determining that event messages matching every attribute of the fingerprint for

the first component have been received;

in response to discovering the first component, perform one or more commands to obtain

information regarding the first component; and

automatically discover the refinement of the first component in the IT system by

matching the information regarding the first component to the one or more attributes of the

refinement of the first component included in the subfingerprint for the refinement of the first

component.

24. An apparatus comprising: a memory storing program instructions;

a processor in communication with the memory; in which the processor is directed by the

program instructions to:

create a fingerprint for a first component, wherein creating the fingerprint for the first

component comprises identifying a plurality of attributes of the first component and selecting

one or more, but not all, of the plurality of attributes as the fingerprint for the first component;

create a subfingerprint for a refinement of the first component, wherein the subfingerprint

for the refinement of the first component includes one or more attributes of the refinement of the

first component;

automatically discover the first component in an information technology (IT) system,

wherein automatically discovering the first component comprises:

receiving a plurality of event messages indicating a plurality of real-time events

that occur in the IT system, wherein each event message matches a respective attribute of the

fingerprint for the first component; and

determining that event messages matching every attribute of the fingerprint for

the first component have been received;

in response to discovering the first component, perform one or more commands to obtain

information regarding the first component; and

automatically discover the refinement of the first component in the IT system by

matching the information regarding the first component to the one or more attributes of the

refinement of the first component included in the subfingerprint for the refinement of the first

component.

### *Reasons for Allowance*

11.     Claims 2-18, 22-24, 30, 32-33 and 35-40 are allowed as amended above.

The following is an examiner's statement of reasons for allowance:

The closest prior arts of record issued to Kar et al., (An Architecture for Managing

Application Services over Global Networks), Keller et al. (Dynamic Dependencies in

Application Service Management) and Kathrow, et al. (US 6393438 B1) together fail to teach or

suggest "a method comprising: creating a plurality of component fingerprints, wherein the

plurality of component fingerprints includes a fingerprint for a first component, wherein creating

the fingerprint for the first component comprises identifying a plurality of attributes of the first

component and selecting one or more, but not all, of the plurality of attributes as the fingerprint

for the first component; automatically discovering the existence of a plurality of components in

an information technology (IT) system using the plurality of component fingerprints, wherein the

discovered components include the first component, wherein automatically discovering the

existence of the first component comprises: receiving a plurality of event messages indicating a

plurality of real-time events that occur in the IT system, wherein each event message matches a

respective attribute of the fingerprint for the first component; and determining that event

messages matching every attribute of the fingerprint for the first component have been received;

wherein the method further comprises: automatically determining at least one dependency

between two or more of the discovered components; and tracking changes to at least one of the

discovered components and the at least one dependency between two or more of the discovered

components." in combination with all the elements of each independent claim as argued by

Applicant [See section 2 of Argument as per appellant's Appeal Brief Filed on 07/10/2008].

Applicant argues that the prior art does not disclose or suggest the combination of limitations

"creating the fingerprint for the first component comprises identifying a plurality of attributes of

the first component and selecting one or more of the plurality of attributes as the fingerprint for

the first component", "wherein each event message matches a respective attribute of the

fingerprint for the first component", "determining that event messages matching every attribute

of the fingerprint for the first component have been received" and "tracking changes to at least

one of the discovered components and the at least one dependency between two or more of the

discovered components". This argument is considered persuasive as per section 2 of Argument

on page 19 through page 24 of appellant's Appeal Brief Filed on 07/10/2008.

The dependent claims further limit the independent claims and are considered allowable on the same basis as the independent claims as well as for the further limitations set forth. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee.  Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## *Conclusion*

12.     Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The

examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the statu9s of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/P. A. S./
Examiner, Art Unit 2144
/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2144